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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/601,745 | 06/23/2003 | John J. Kenny | 08286.105009 DIV | 8989 |
| 20786 | 7590 | 06/15/2005 | EXAMINER | |
| KING & SPALDING LLP 191 PEACHTREE STREET, N.E. 45TH FLOOR ATLANTA, GA 30303-1763 | | | BELLO, AGUSTIN | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2633 | |

DATE MAILED: 06/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/601,745

Applicant(s)

KENNY, JOHN J.

Examiner

Agustin Bello

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 February 2005.
2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12-18 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 12-18 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claim 12 is rejected under 35 U.S.C. 102(e) as being anticipated by Miyamoto (U.S. Patent No. 6,707,024).

Regarding claim 12, Miyamoto teaches receiving an optical signal that is formatted according to a network protocol and predetermined timing scheme and having a predetermined encoding (e.g. "Optical Signal" as seen in Figure 1) scheme that provides transitions per code group of data to facilitate clock recovery (reference numeral 9 in Figure 1), increasing a speed in which a detecting circuit can receive optical signals by adjusting a time constant (column 6 lines 1-6) of the detecting circuit according to a predetermined frequency of the data that is dependent upon the network protocol and encoding scheme, increasing a speed in which the automatic gain control circuit can adjust gain between different optical signals by adjusting a time constant (column 6 lines 7-14) according to the predetermined frequency; increasing a speed in which a limiting circuit can convert optical signals to electrical signals by adjusting a time constant (column 6 lines 38-42) according to the predetermined frequency; and converting the optical signals to electrical signals (e.g. via photodetector 3 in Figure 1) according to the predetermined

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frequency. Miyamoto specifically teaches that the time constant and changes thereto dictate the tracking speed of a photodiode (column 8 lines 1-15 and column 9 lines 15-21)

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyamoto.

Regarding claims 13-15, Miyamoto differs from the claimed invention in that Miyamoto fails to specifically teach the various signal formats or encoding types claimed by the applicant. However, each of the various signal formats or encoding types claimed by the applicant are very well known in the art. Gigabit Ethernet, 8B/10B, and time division multiple access are all well known in the art of optical signal transmission and would have been obvious to one skilled in the art.

5. Claims 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyamoto in view of Matsuda (U.S. Patent No. 6,740,861).

Regarding claims 16-18, Miyamoto teaches that the time constant of a receiver dictates the response speed of the receiver and adjustments thereto result in changes to the response speed of the receiver. However, Miyamoto differs from the claimed invention in that Miyamoto fails to specifically teach increasing the speed of the receiver by decreasing the capacitance and thereby decreasing the time constant. However, such a method is well known in the art.

Matsuda teaches increasing the receiving speed of a receiver by decreasing the capacitance and

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thereby decreasing the time constant (column 1 lines 16-26). One skilled in the art would have been motivated to decrease the capacitance and thereby decrease the time constant in order to increase the elements ability to receive an optical signal. Therefore, it would have been obvious to one skilled in the art at the time the invention was made to decrease the capacitance and thereby decrease the time constant in the device of Miyamoto as taught by Matsuda.

Response to Arguments

6. Applicant's arguments filed 2/4/05 have been fully considered but they are not persuasive. The applicant argues that the newly added limitations are not taught by the cited prior art. However, the examiner disagrees. As noted in the office action the receiver of Miyamoto is clearly capable of clock recovery (reference numeral 9 in Figure 1) and therefore the input signal must provide transitions per code group of data to facilitate this clock recovery. Furthermore, if the applicant is able to increase the speed of the detecting unit by adjusting the time constant of the detecting unit according to the predetermined frequency of the data input, then the system of the cited prior art is also capable of accomplishing this by adjusting the time constant of the detecting circuit according to the predetermined frequency of the data input. The same holds true for increasing the speed of the automatic gain and limiting portions of the system of Miyamoto. As agreed upon by both the examiner and applicant, Miyamoto makes adjustment to the time constants of the system based on received power of the signal. In doing so Miyamoto also makes adjustment to the time constants of the system based on the frequency of the input signal since the on (high power) and the off (lower power) signal states directly represent the frequency of the input signal after numerous such transitions. In other words, the system of Miyamoto can determine the frequency of the input signal, recover a clock signal, and adjust the

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time constants of the system by observing the repetition, or frequency of the high power states (on) and low power states (off), and by doing so increase the speed of the system much like the claimed invention. As such, the examiner maintains the rejection of the claimed invention based on the cited references.

Conclusion

7. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Agustin Bello whose telephone number is (571) 272-3026. The examiner can normally be reached on M-F 8:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on (571)272-3022. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AB


AGUSTIN BELLO
PATENT EXAMINER